

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (currently amended): A method for measuring quality of service at an application level in a telecommunication network, the method comprising:

monitoring operation of an application by a monitoring apparatus through a network interface including:

monitoring the network interface for data packets;

receiving, at the monitoring apparatus, a data packet associated with the operation of the application as the data packet is being transmitted between two network nodes through the network interface, wherein the two network nodes are different from the monitoring apparatus, and

filtering the received data packet; and

storing network data including the filtered data packet in a buffer of the monitoring apparatus, wherein the network data is indicative of a behavior of the network;

transmitting the stored network data to a remote network entity for analysis of the stored network data at the remote network entity;

subsequent to transmitting the stored network data to the remote network entity, receiving a trigger signal at the monitoring apparatus from ~~a~~the remote network entity in response to a critical situation corresponding to the quality of service of the application, wherein the remote network entity is different from the two network nodes; and

in response to receiving the trigger signal, transmitting, from the monitoring apparatus, the stored network data to a remote network archive associated with the remote network entity, wherein the remote network archive is different from the buffer of the monitoring apparatus.

2 (previously presented): The method of claim 1, wherein the critical situation is detected based on data from a plurality of monitoring apparatuses.

3 (previously presented): The method of claim 1, further comprising measuring the quality of service based on the network data in synchronized fashion with at least one other monitoring apparatus.

4 (previously presented): The method of claim 1, wherein the archive is configured to store data from a plurality of monitoring apparatuses.

5 (previously presented): The method of claim 1, wherein the remote network entity from which the trigger signal is received includes a centralized coordination apparatus configured to transmit trigger signals to a plurality of monitoring apparatuses.

6 (previously presented): The method of claim 1, further comprising:

associating an activation function configured to test the operation of the application to a control function configured to detect the critical situation relating to the quality of service.

7 (previously presented): The method of claim 6, wherein the activation function and said control function co-operate with each other according to an agent/server configuration, in which said activation function acts as an agent and said control function acts as a server.

8 (cancelled).

9 (previously presented): The method of claim 1, wherein storing the network data includes storing data for a specified time window.

10 (previously presented): The method of claim 1, wherein at least one of the trigger signal and the data indicative of the behavior of the network is transmitted through a direct transmission channel.

11 (cancelled).

12 (previously presented): The method of claim 1, wherein the monitoring apparatus is further configured to intercept said trigger signal transmitted on said network.

13 (currently amended): A system for measuring the quality of service at an application level in a telecommunication network, the system comprising:

at least one activating apparatus configured to carry out sessions at the application level on said network (N),

at least one monitoring apparatus configured to:

monitor a network interface for data packets transmitted between two network nodes different from the at least one monitoring apparatus;

receive a data packet as the data packet is being transmitted between the two network nodes

filter the received data packet, ~~and~~

store the filtered data packet in a buffer of the at least one monitoring apparatus,

and

transmit said data packet to at least one testing apparatus for analysis of the data packet at the at least one testing apparatus;

the at least one testing apparatus, separate from the at least one monitoring apparatus and the two network nodes, configured to:

detect a critical situation related to said quality of service,

generate, in response to said critical situation, a trigger signal subsequent to said at least one monitoring apparatus transmitting said data packet, and

transmit the trigger signal to the at least one monitoring apparatus; and

a collecting apparatus configured to collect, in response to the generation of said trigger signal, said data packet stored in said at least one monitoring apparatus, wherein the data packet is indicative of a behavior of the network.

14 (previously presented): The system of claim 13, further comprising a plurality of monitoring apparatuses configured to measure and store data indicative of the behavior of the network.

15 (previously presented): The system of claim 14, further comprising a plurality of synchronization modules associated with said plurality of monitoring apparatuses to measure said data indicative of the behavior of said network (N) in synchronized fashion:

16 (previously presented): The system of claim 13, wherein the at least one monitoring apparatus further comprises:

a memory configured to store data indicative of the behavior of said network, wherein the data includes the filtered data packet, and

a transmission module configured to transmit said data indicative of the behavior of said network to said collecting apparatus in response to receiving said trigger signal.

17 (previously presented): The system of claim 13, further comprising a central management apparatus separate from the at least one monitoring apparatus and the at least one testing apparatus, wherein the central management apparatus is configured to receive said trigger signal from said at least one testing apparatus and to broadcast said trigger signal to said at least one monitoring apparatus.

18 (previously presented): The system of claim 13, wherein the at least one activating apparatus and said at least one testing apparatus mutually co-operate according to a general agent/server configuration, in which said activating apparatus acts as agent and said verification apparatus acts as server.

19 (previously presented): The system of claim 13, wherein the at least one monitoring apparatus is configured to monitor for the data packet through at least one interface used by an application in the network.

20 (previously presented): The system of claim 13, wherein the at least one monitoring apparatus comprises a memory dimensioned to store at least a portion of the data packet.

21 (previously presented): The system of claim 13, further comprising at least one transmission channel to forward:

said trigger signal to said at least one monitoring apparatus, and
said data packet from said at least one monitoring apparatus.

22 (cancelled).

23 (previously presented): The system of claim 13, wherein the at least one monitoring apparatus comprises a filtering module configured to intercept said trigger signal transmitted.

24-31 (cancelled).

32 (currently amended): One or more computer readable media storing computer readable instructions that, when executed, cause an apparatus to:

monitor operation of an application through a network interface including:

monitoring the network interface for data packets;

receiving, at the monitoring apparatus, a data packet associated with the operation of the application as the data packet is being transmitted between two network nodes through the network interface, wherein the two network nodes are separate from the monitoring apparatus, and

filtering the received data packet;

store network data including the filtered data packet a buffer of the apparatus, wherein the network data is indicative of a behavior of the network;

transmit the stored network data to a remote network entity for analysis of the stored network data at the remote network entity;

subsequent to transmitting the stored network data to the remote network entity, receive a trigger signal from a the remote network entity in response to a critical situation corresponding to quality of service of the application, wherein the remote network entity is separate from the two network nodes and the monitoring apparatus; and

in response to receiving the trigger signal, transmit the stored network data to a remote network archive associated with the remote network entity, wherein the remote network archive is different from the buffer of the apparatus.

33 (previously presented): The one or more computer readable media of claim 32, wherein the apparatus is a monitoring apparatus and wherein the critical situation is detected based on data from a plurality of monitoring apparatuses.

34 (previously presented): The one or more computer readable media of claim 32, wherein the computer readable instructions, when executed, further cause the apparatus to measure the data indicative of the behavior of said network in synchronized fashion with at least one other apparatus in the network.

35 (previously presented): The one or more computer readable media of claim 32, wherein the archive is a centralized archive storing data from a plurality of network apparatuses.

36 (previously presented): The one or more computer readable media of claim 32, wherein the network entity from which the trigger signal is received includes a centralized coordination apparatus configured to transmit trigger signals to a plurality of network apparatuses.

37 (currently amended): An apparatus comprising:

a processor; and

memory operatively coupled to the processor and storing computer readable instructions that, when executed, cause the apparatus to:

monitor operation of an application through a network interface including:

monitoring the network interface for data packets;

receiving, at the apparatus, a data packet associated with the operation of the application as the data packet is being transmitted between two network nodes through the network interface, wherein the two network nodes are different from the apparatus, and

filtering the received data packet;

store network data including the filtered data packet received through the network interface in a buffer, wherein the network data is indicative of a behavior of the network;

transmit the stored network data to a remote network entity for analysis of the stored network data at the remote network entity;

subsequent to transmitting the stored network data to the remote network entity, receive a trigger signal from ~~a~~the remote network entity in response to a critical situation corresponding to the quality of service of the application, wherein the remote network entity is different from the two network nodes and the apparatus; and

in response to receiving the trigger signal, transmit the stored network data to a remote network archive different from the buffer.

38 (previously presented): The apparatus of claim 37, wherein the computer readable instructions, when executed, further cause the apparatus to measure the data indicative of the behavior of said network in synchronized fashion with at least one other network apparatus.

39 (previously presented): The apparatus of claim 37, wherein the remote network archive is configured to receive data from a plurality of network apparatuses.